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EXAMINER

ART UNIT	PAPER NUMBER
2	5

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03/13/96

DATE MAILED:

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

☒ This application has been examined ☐ Responsive to communication filed on _____ ☐ This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), ~~_____ days~~ from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

1. ☒ Notice of References Cited by Examiner, PTO-892.
2. ☒ Notice of Draftsman's Patent Drawing Review, PTO-948.
3. ☒ Notice of Art Cited by Applicant, PTO-1449.
4. ☐ Notice of Informal Patent Application, PTO-152.
5. ☐ Information on How to Effect Drawing Changes, PTO-1474.
6. ☐ _____.

Part II SUMMARY OF ACTION

1. ☒ Claims 1-27 are pending in the application.

   Of the above, claims _____ are withdrawn from consideration.

2. ☐ Claims _____ have been cancelled.

3. ☐ Claims _____ are allowed.

4. ☒ Claims 1-27 are rejected.

5. ☐ Claims _____ are objected to.

6. ☐ Claims _____ are subject to restriction or election requirement.

7. ☒ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.

8. ☐ Formal drawings are required in response to this Office action.

9. ☐ The corrected or substitute drawings have been received on _____. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable; ☐ not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948).

10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on _____. has (have) been ☐ approved by the examiner; ☐ disapproved by the examiner (see explanation).

11. ☐ The proposed drawing correction, filed _____, has been ☐ approved; ☐ disapproved (see explanation).

12. ☐ Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☐ been received ☐ not been received ☐ been filed in parent application, serial no. _____; filed on _____.

13. ☐ Since this application apppears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.

14. ☐ Other

1. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

2. The drawings are objected to because reference numeral 24 in Fig. 2 has no correspondence in the specification, in violation of 37 CFR 1.84(p)(5). Correction is required.

Applicant is required to submit a proposed drawing correction in response to this Office action. However, correction of the noted defect can be deferred until the application is allowed by the examiner.

3. The drawings are objected to under 37 C.F.R. § 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "inductive pickup" of claims 18 and 20 must be shown or the feature cancelled from the claim. No new matter should be entered.

It is apparent from the disclosure (e.g. p. 7, lines 29-32) that the energy for powering receiver 4 is collected by one of two methods, either by detecting muscle activity (as shown in Fig. 2, note elements 28 and 30, and as recited in claims 19 and 21) or by induction coupling (as recited in claims 18 and 20). However, only the "muscle activity detection" embodiment is shown.

4. The disclosure is objected to because of the following informalities: on p. 10, line 11, "of" should be --or--; on p. 10, line 13, after "building" should be inserted a comma; on p. 11, lines 16 and 19, reference numeral "35" has no correspondence in the drawings, in violation of 37 CFR 1.84(p)(5); and on p. 11, line 13 and p. 14, line 18, "in" should be --and--. Appropriate correction is required.

5. Claims 8-10 and 14 are objected to under 37 CFR 1.75(b) as being "unduly multiplied", i.e. claims 8 and 10 further limit claim 3 in essentially the same manner and claims 9 and 14 further limit claim 3 in essentially the same manner.

6. The following is a quotation of the first paragraph of 35 U.S.C. § 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The specification is objected to under 35 U.S.C. § 112, first paragraph, as failing to provide an enabling disclosure.
i) Where claim 1 recites "receiver means" and "triggering means" as separate elements, it is apparent based on the disclosure that the "triggering means" is simply decoder 6 while the "receiver means" includes receiver 4, micro-power circuitry 34 and energy reservoir 36 (note that receiver 4 relies upon elements 34,36 for its power supply--p. 11, lines 14-16 and 31-33). As such, the subject matter of claims 2-5 is inconsistent with the disclosure in that it appears (based on the disclosure) that the receiver means, rather than the triggering means, comprises: (1) the "electromechanical device having a binary output" of claims 2-3; (2) the "wave receiver for receiving a transmitted wave" of claim 4; and (3) the "sustainable power supply" and "means for picking up...energy" of claim 5.
ii) Applicant discusses prior art on pp. 1-2 of the specification which teaches using radio frequencies of "460 MHz" (p. 1, line 19) and "173.075 MHz" (p. 2, line 2). However, the specification fails to teach that these frequencies (or a range which includes these frequencies) could be used in applicant's system.

7. Claims 2-17 and 23-24 are rejected under 35 U.S.C. § 112, first paragraph, for the reasons set forth in the objection to the specification.

8. Claims 1-21 and 25-27 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, lines 5-6, "said transmitter means" lacks antecedent basis.

In claim 4, it is unclear if "a transmitted wave" (line 3) and "an incoming wave signal" (lines 4-5) refer to the same or different signals.

At the end of claim 4, "said transmitter means" lacks antecedent basis.

In claim 5, last 3 lines, "the wave receiver means" and "said incoming wave signal" each lack antecedent basis.

At the end of claims 8 and 10, "said decoding means" lacks clear antecedent basis.

In claim 11, line 4, "that the all" is vague.

In claim 11, lines 4-5, "said predetermined information signal" lacks clear antecedent basis, and/or it is unclear whether this phrase is referring to the "externally generated information signal" at claim 1, line 8 or the "predetermined time-encoded information" at claim 3, line 4.

At the end of claim 11, "said detector means" lacks antecedent basis.

In claims 13 and 14, "said digital decoding means" lacks clear antecedent basis.

In claim 15, lines 1-2, "said wave receiver means" lacks clear antecedent basis.

In claim 15, lines 4-5, "said detecting means" lacks antecedent basis.

In claim 16, lines 4-5, "said predetermined information signal" lacks antecedent basis.

At the end of claim 16, "said detector means" lacks antecedent basis.

In claim 20, "said inductive pickup means" lacks antecedent basis.

At the end of claims 25 and 27, after "beacon" should be inserted --signals--.

In claim 26, line 13, after "capable" should be --of--.

In claim 26, line 15, "said transmitters" is indefinite as to which of the previously recited transmitters (see lines 5 and 11, respectively) are intended.

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent; or
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

10. Claims 1 and 4 are rejected under 35 U.S.C. § 102(a) as being anticipated by deCoriolis et al.

DeCoriolis et al. disclose an "implantable" transceiver device, note transmitter 34; power source 26; "triggering means",

e.g. microprocessor 22 or telemetry support 30; receiver means 32; and antenna 36. Regarding claim 4, receiver means 32 is a "wave receiver"; and the "triggering means" of deCoriolis et al. include "signal decoders" 94,100 which provide a "trigger" signal (note the output ports 104-116 associated with decoder 100) that "activates" the transmitter 34 (via monitor circuit 20).

11. Claims 1, 4 and 17 are rejected under 35 U.S.C. § 102(e) as being anticipated by Morgan et al.

Morgan et al. disclose an "implantable" transceiver device, note transmitter 112; power source ("battery", col. 3, line 3); "triggering means", e.g. demodulator 128, decision logic 130, processor 108 and/or power control 132; receiver means 126; and antenna 104. Regarding claim 4, receiver means 126 is a "wave receiver"; and the "triggering means" of deCoriolis et al. include a signal "decoder" (demodulator 128) which provides a "trigger" signal that "activates" the transmitter 112 (via elements 130,108,132). Regarding claim 17, Morgan et al. further teach regulating the power of the transmitter 112 via comparator 136, processor 108 and power control 132 (col. 5, line 51 to col. 6, line 14), where processor 108 and power control 132 are part of the "triggering means" as noted above. Thus, Morgan et al. further disclose a "charging regulator" (any of elements 108, 132 and 136) for maintaining the transmitter's power source at a "state of peak charge".

12. Claim 22 is rejected under 35 U.S.C. § 102(b) as being anticipated by Man (cited by applicant).

Man discloses a system for tracking and recovering of humans in distress, note transmitter 62 "implanted" in a human being (col. 6, lines 6-7) which is "triggerable" (by e.g. manual control 53 or physiological probe 56--col. 5, lines 25-37) to transmit RF signals in response to being triggered, and a

"network" of receivers (e.g. 68-70) sensitive to the RF signals for deriving "positional information" concerning the source of the signals (col. 6, lines 10-12).

13. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
>
> Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

14. Claims 23-24 are rejected under 35 U.S.C. § 103 as being unpatentable over Man.

Man teaches that the frequencies usable with his system include "the cellular, microwave, radio or satellite transmission ranges" (col. 4, lines 56-57), and teaches as an example using the range of "806 to 960 MHz" (col. 4, line 60). While the specific range disclosed does not encompass the particular frequencies being claimed, it is apparent that the Man system is workable with any frequency in a much wider range, e.g. 173.075 MHz or 460 MHz. Further, "where the general conditions of a claim (e.g., a transmitter/receiver tracking system) are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges (e.g. 173.075 MHz or 460 MHz) by routine experimentation" In re Aller, 105 USPQ 233 (CCPA 1955).

Therefore, the particular choice of 173.075 MHz or 460 MHz for the transmission frequency, in a system having the "general conditions" taught by Man, is not considered to involve a patentable step.

15. Claim 25 is rejected under 35 U.S.C. § 103 as being unpatentable over Man in view of Allen.

Man is relied upon as set forth in paragraph 12 above, and thus teaches all the subject matter claimed except for some of the "network" of receivers (which are used to derive "positional information" of the transmitter) being "mobile" receivers.

Allen discloses a system for tracking and recovering of objects, note transmitter 16 and receivers 34a-34e, wherein some of the receivers are "fixed" (e.g. 34a) and some of the receivers are "mobile" (e.g. 34b), and the signals received at all of the receivers are used to derive "positional information" of the transmitter. See col. 3, lines 26-36.

In view of Allen it would have been obvious combine "mobile" receiver information with the fixed receiver information of Man in deriving "positional information" with respect to the transmitter (62 in Man), in order to provide greater accuracy in the position determination thereby pinpointing more quickly the position of the monitored individual.

16. Claims 2-3, 5-16 and 18-21 would be allowable if rewritten to overcome the rejection under 35 U.S.C. 112 and to include all of the limitations of the base claim and any intervening claims.

17. Claims 26-27 would be allowable if rewritten or amended to overcome the rejection under 35 U.S.C. 112.

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Denniston, Liotta and Badylak et al. disclose "muscle powered" implanted devices. Schlager et al., Hoshen and Wesby disclose "positional information" detection systems for monitored persons.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom Mullen whose telephone number is (703) 305-4382. The examiner can normally be reached on Mon.-Fri. from 7:30AM to 4:00PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Peng, can be reached on (703) 305-4392. The fax phone number for this Group is (703) 308-5397.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-8576.

T.Mullen
March 11, 1996

Thomas J. Mullen Jr.
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